California Department of Technology, Office of Technology Services MySQL GUIDELINE

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1.0 GENERAL

1.1 SUMMARY

Office of Technology Services (OTech) provides a number of database management system (DBMS) technologies on various hardware and operating system platforms. This document provides guidance on using MySQL.

OTech offers MySQL on leased equipment within the data center. Included in this offering is installation, patching and product maintenance. Staff performs these tasks according to standard procedures and configurations. MySQL is offered on dedicated MS Windows platform servers.

OTech supports version(s) of MySQL in accordance with the OTech Software Version Support Procedure. Failure to migrate off of unsupported versions by predetermined dates may incur additional charges and experience support delays. Refer to the OTech Procedure 4000 – Software Version Support for details.

Databases should not require the permanent use of root access account(s) in order to function. Customers may be provided temporary DBMS root access for a limited time. This privilege may incur an additional charge and must be authorized by OTech prior to use.

OTech only provides MySQL administration on equipment within the Application Hosting offering.

The MySQL Community edition is not supported.

1.2 REFERENCES

Items referenced here are found elsewhere in this document.

IDENTIFIER	DATE	TITLE
04.13.875	2012	MySQL Submittal
04.17.866	2012	Microsoft Windows Server Submittal
04.17.866	2012	Microsoft Windows Server Submittal Instruction
3132	2010	OTech Standard 3132 - Midrange Database Security
Website	NA	OTech Service Request Process
4000	2011	OTech Software Version Support Policy
4000	2011	OTech Procedure 4000 – Software Version Support
Web Site	NA	OTech Contact Information
3138	2010	OTech System Administrator Standard, 3138
3502	2010	3502 - Information Security Exception Request

1.3 **SUBMITTALS**

1.3.1 General

OTech is available to advise and assist customers in formulating IT designs that will leverage available service offerings. Contact your Account Manager to engage architectural/engineering and design consulting services. Additional charges may be incurred.

Include the Customer's name, contact information and associated project name on forms, documents, and requests submitted to OTech.

Use the following method for work requests:

Item	Request Method
Quotes & Billable Service	OTech Customer Service System (CSS) Request
Modifications to Existing Systems	OTech Service Desk, CSS or Remedy Service Request
Technical Problems	OTech Service Desk or Remedy Incident
Security Related Issues/Incidents	OTech Service Desk
Temporary DBMS Administrator	Information Security Exception Request. Follow
Privilege Request	procedure outlined in OTech Standard 3132 - Midrange
	Database Security and Procedure
	3502 - Information Security Request

1.3.2 Service Request

A completed MySQL Submittal is required prior to the start of work. To aid in the preparation of providing this technology, all information must be included in the OTech Service Request.

This Submittal is to be revised at appropriate intervals providing for expeditious and practicable execution of the Work. Revised submittal(s) must indicate changes, if any.

1.4 EXPECTATIONS

1.4.1 OTech

OTech manages contract and licensing for DBMS software and serves as liaison between the customer and Microsoft for technical system-level DBMS issues.

Technology products must be within vendor supported versions to sustain availability and integrity. OTech documents end-of-support and will inform Customers of the upgrade plan through OTech Account Managers and E-News notifications.

OTech follows change management practices. Change requests are recorded in the OTech Remedy system, as a Change Request (CRQ). OTech account managers

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can provide current change procedures.

1.4.2 Customer

Customers are expected to maintain logical and physical database design diagram(s) and provide them to OTech upon request. Customers should update the logical and physical database design diagram(s) as the database environment(s) are completed and accepted by the Customer.

Customers are expected to understand product lifecycles and collaborate with OTech on upgrades, testing, and verification of their database technology before the end-of-support date. Failure to migrate off of unsupported versions may incur additional charges. Refer to the OTech Procedure 4000 – Software Version Support for details.

Customers are expected to determine and submit details on hardware capacity needs (e.g., RAM, storage space) and software (e.g., version and edition of MySQL).

Customers are expected to identify and lead the resolution of database application related problems. Customers may identify and report system level database problems to OTech.

1.5 **SCHEDULING**

OTech's goal is to provide timely and economical technology service. Customers promote this goal by promptly providing information requested, and by keeping the OTech project manager / account manager informed of technology project status.

1.5.1 Backup

OTech performs database backups on the following schedule:

WHAT	WHEN
Full Backup	Once daily; Monday through Saturday
Transaction Log	Every three hours Monday through
Backup	Saturday
Backup Retention	28 days

1.5.2 Change Management Schedule

MySQL change proposal / requests follow the established OTech Change Management process. MySQL maintenance activities utilize the MS Windows platform maintenance schedule; however, changes may be scheduled. Changes require 2-week prior notification. Shorter periods may not always be accommodated. Security related changes adhere to the OTech Security Patching and Monitoring Standard.

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Additional charges may be incurred for expedited change requests.

1.6 **DEFINITIONS**

Term, phrase, abbreviation	Definition
DBMS	Database Management System
Root	System Level Administration
SDK	Software Development Kit

2.0 PRODUCTS

Additional components and specific DBMS configuration needs should be documented in 1.3 - Submittals.

2.1 MySQL 5.X

- 1. Standard or Enterprise
- 2. 32bit and 64bit

2.1.1 MySQL Installation Types

- 1. Developer Machine
- 2. Server Machine
- 3. Dedicated Machine

2.1.2 MySQL Usage

- 1. Multifunctional
- 2. Transactional
- 3. Nontransactional

2.1.3 MySQL Installed Component(s)

1. Workbench

2.2 PLATFORM

OTech supports MySQL on both physical and virtual MS Windows platforms.

3.0 EXECUTION

3.1 **SECURITY**

MySQL root access is restricted to OTech designated personnel. Customers may be granted temporary root access to their leased installations of MySQL during development. If a customer requires temporary root access, an Information Security Exception Request must be submitted. Please follow the procedure outlined in Procedure 3502 — Information Security Exception Request and adhere to both the OTech Standard 3132 - Midrange Database Security and OTech Standard 3138 — System Administrator Standard.

Configuration changes made outside the scope delineated above and needing intervention, correction, or troubleshooting by OTech staff may incur additional charges.

3.2 SUPPORT AVAILABILITY

The core business hours for MySQL technical support are Monday through Friday 0800 – 1700. State holidays and mandated schedule alterations are observed and may impact staff availability.

3.3 QUALITY CONTROL

MySQL installation requests must be reviewed and approved by OTech.

1. MySQL installation is provided by OTech in accordance with the manufacturer installation procedures and MySQL Submittal.

3.3.1 OTech Responsibilities

- 1. Review and approval of submitted information prior to beginning work.
- 2. Notify Customer of submittal flaws, if any.
- 3. MySQL installation, upgrades, patching, and standard configuration.
- Assist customer in specifying design in accordance with information provided in 1.3 - Submittals.
- 5. Assist customer with DBMS incident resolution subsequent to application configuration changes.

3.3.2 Customer Responsibilities

- 1. Design, develop, deploy, test the database and maintain its interaction with application(s).
- 2. Submit complete 1.3 Submittals information.

3.4 **INSTALLATION**

3.4.1 OTech Responsibilities

- 1. System-level administration
- 2. Assist customers with data migration
- 3. Maintain data and log file backups
- 4. Create database user account(s) within MySQL and assign permissions in accordance with MySQL Submittal
- 5. Monitor and fine tune DBMS software
- Review and recommend optional configurations that may better meet capacity and performance requirements in accordance with the MySQL Submittal
- 7. Perform DBMS version migrations, patching and upgrades
- 8. Maintain database administration tools
- 9. Maintain DBMS software/configurations
- 10. Resolve RDMS system-level problems or seek vendor support for DMBS issues through authorized escalation processes

3.4.2 Customer Responsibilities

- 1. Define database availability requirements
- 2. Document database design and application architecture
- 3. Maintain database dictionaries
- 4. Respond to notifications provided by OTech staff with mitigating action
- 5. Maintain application and database statistics
- 6. Test new maintenance and software releases at user and application levels
- Submit service request(s) to purchase MySQL licenses or renew maintenance
- 8. Additional charges for OTech intervention, troubleshooting and correction of unauthorized changes. This may include a pass-thru charge of licensed auditing software used to repair unauthorized changes
- 9. Create and maintain database objects
- 10. Load database data or provide it to OTech to load
- 11. Application design, maintenance, and migration must adhere to supported software versions
- 12. Code modification
- 13. Provide database scripts, if applicable
- 14. Notify OTech of Third Party Software application software, components and accessories affecting the DMBS during configuration, tuning and upgrades of the application software